

**KINDERGARTEN**  
**IN MATERIAL**  
**Primary Work**

*How to use it*

**Mat**  
**Weaving**  
*And*  
**Slat Weaving**  
**In**  
**Primary Schools**

By FIVE EXPERIENCED  
PRIMARY TEACHERS

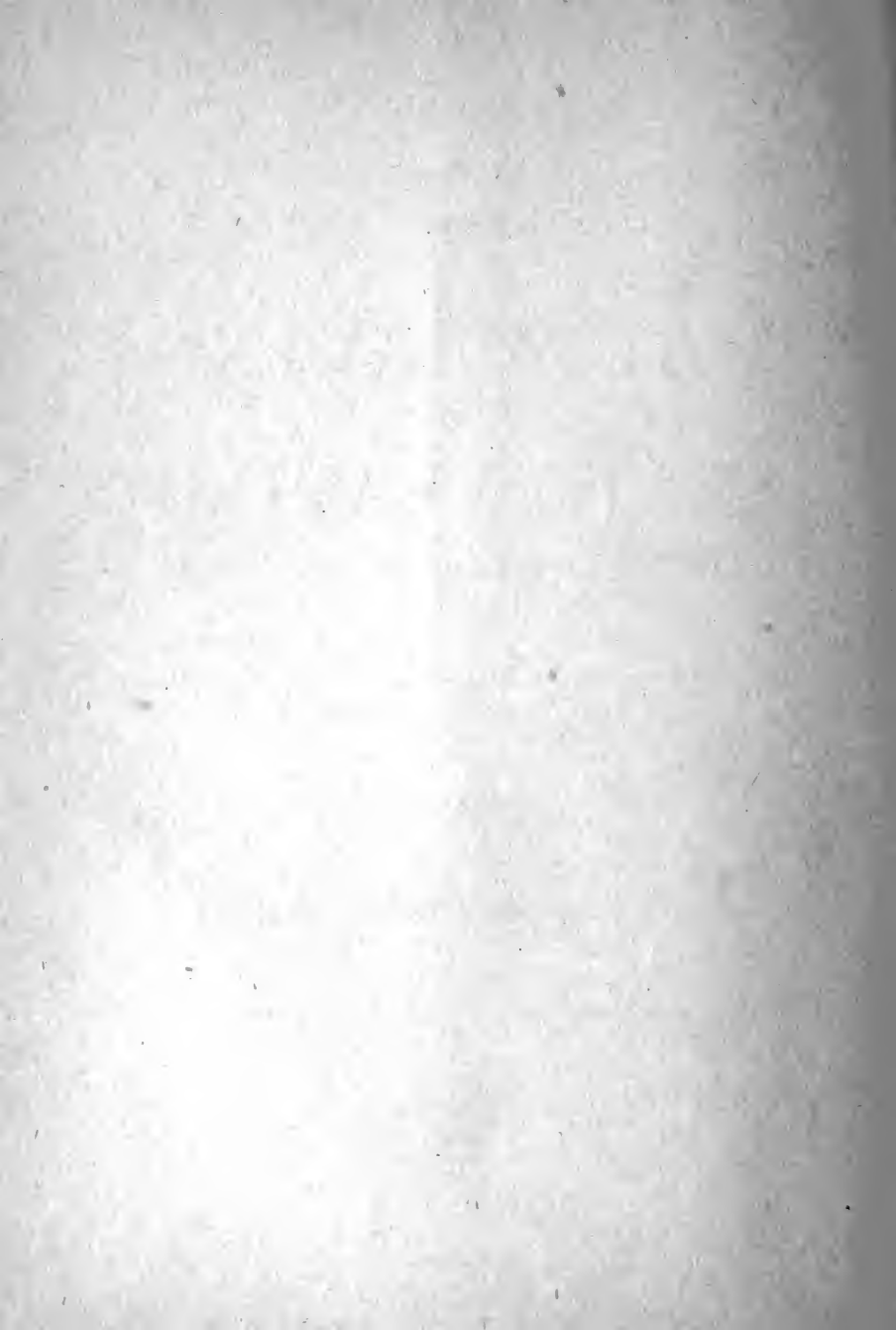
J.H. SHULTS  
PUBLISHER

HANISTEE  
MICH.

Price, Fifteen Cents.







Kindergarten Material in Primary  
Schools---How to Use It.

---

MAT WEAVING  
AND  
SLAT WEAVING  
In Primary Schools

---

A PRACTICAL MANUAL ESPECIALLY FOR PRIMARY-  
KINDERGARTEN TEACHERS.

---

WITH MANY ILLUSTRATIONS

---

By Five Experienced Primary Teachers.

---

Copyright 1904, by J. H. Shults, Manistee, Mich.

---

MANISTEE, MICHIGAN.  
AMERICAN KINDERGARTEN SUPPLY HOUSE.  
J. H. SHULTS, Proprietor.

LB 1531  
F#6

LB 1543  
F#5

LIBRARY of CONGRESS	
Two Copies Received	
JAN 19 1904	
Copyright Entry	
Jan. 19-1904	
CLASS a	XXc. No.
77408	
COPY B	

MAILED AT  
BOSTON TO

2. H. T. 4, 06

## *Preface*

This work constitutes one of a series now issued or soon to be published upon the use of kindergarten material in primary schools.

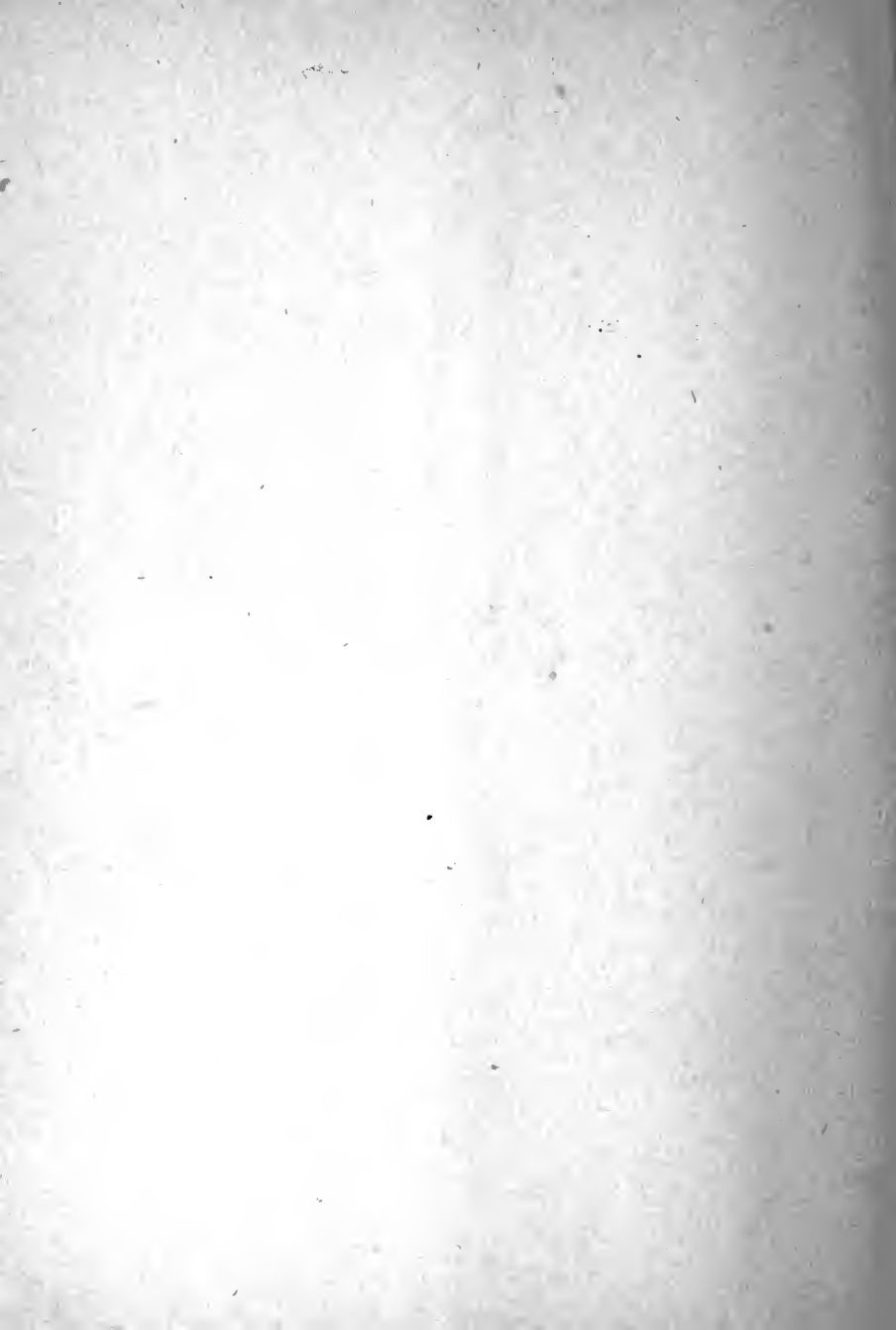
The purpose of the author and publisher is to aid in bringing about the best possible kindergarten training in primary schools.

While the use of this material has rapidly increased within the last few years, thus far there has been an almost total absence of literature along this line.

While the regular kindergartens are doing most worthy work, yet their operations are limited to the comparative few. Probably 95 per cent of the children of America will receive their first training outside the home in primary schools, and while the establishment of regular kindergartens everywhere is always to be encouraged, in the meantime let us labor to make the best possible and only available substitute—the primary school—a place where at least some of the advantages of kindergarten training can be secured.

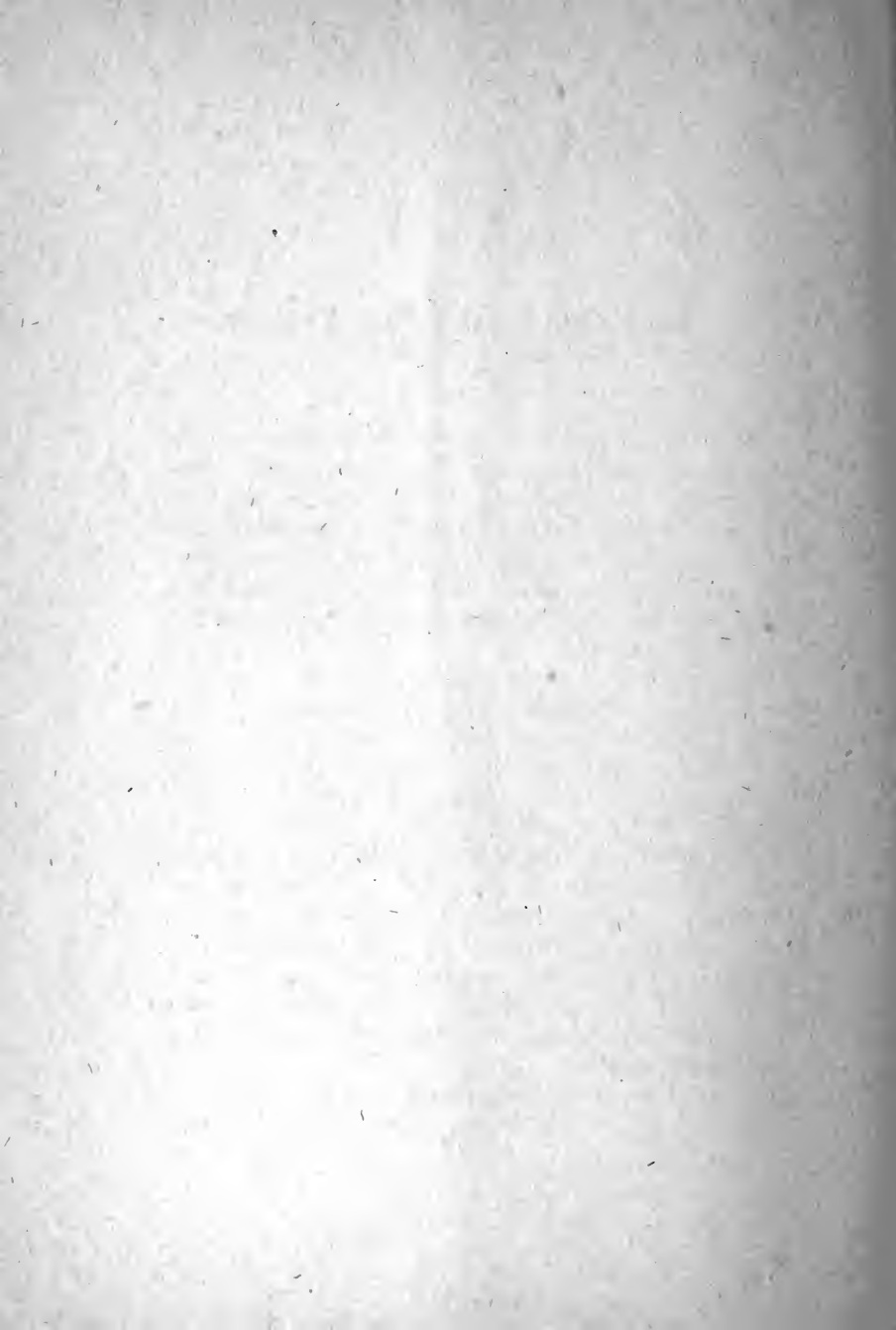
The teacher will understand that the primary purpose of all the kindergarten gifts and occupations is the development of the physical, mental, and moral faculties of the child, and not the construction of objects, etc. While it is probably true, that no child can construct a form new to him without developing his capacity for construction, yet a much greater development will result if the lessons are properly conducted. In order to secure the best development, the child should be helped by hints and suggestions, rather than by direct instruction. He should be encouraged to think and act for himself, and to overcome the difficulties which he encounters, unaided, whenever possible. This, however, should not be carried so far as to lead the child to become discouraged or dissatisfied with the work.

THE AUTHOR.





***Part 1***  
***Mat Weaving***



## The Sixth Occupation—Mat Weaving in Primary Schools.

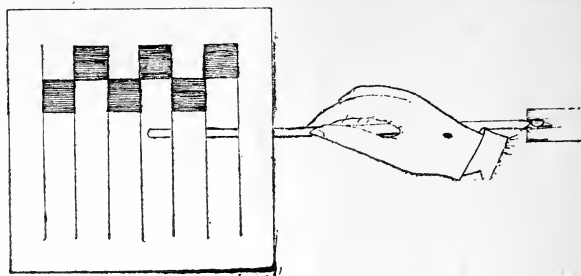
---

Mat weaving can be conducted most successfully in primary schools. Some personal supervision is necessary at the start but soon the children can continue the work from dictation with but little assistance. The work correlates with number lessons perhaps better than any other occupation. Over one, under two, over three, etc., furnishes an excellent drill in counting and combining numbers.

The small sized mats with wide strips should be first used, and for much first and second grade work, Mrs. Hailmann's graded mats are recommended. The material consists of mats and fringes. The mats constitute the base of the design. The fringes consist simply of the strips which are to be torn off one at a time as needed and woven into the design. In appearance they resemble the mats, but the cutting is continued more nearly to the end, the idea being to leave the strips attached at each end for convenience in handling. The weaving is done with the aid of weaving needles, but for first lessons the hardwood slats should be used instead of the weaving needles, being more easily handled.

When weaving with the paper is to be commenced, tear off a strip of the fringe, attach it to the needle

and inserting the weaving needle weave over and



under according to the design. The simplest weaving consists of over one, under one, etc. The teacher can dictate this and other forms or she can write it on the board as shown by the following diagram, which is suggested by Miss Delia A. Finn, of Jackson, Mich.:

<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
	<u>2</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>
<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>
	<u>2</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>2</u>

This will be understood at a glance. The top line would read, "Under one, over one," etc., the second line, "Under two, over two," etc.

The following suggestions from Miss Lou Keatly of Dowagiac may be given as a verbal dictation or placed on the board in the manner indicated above.

### *Suggestions for Mat Weaving.*

Abbreviations: *u*, under; *o*, over.

#### FOR A FIVE-STRIP MAT.

First Strip—Under margin, *o2*, *u1*, *o2*.  
2nd strip—under margin, *o1*, *u1*, *o1*, *u1*, *o1*.  
3rd strip—under margin, *u1*, *o3*, *u1*.  
4th strip—Same as second strip.  
5th strip—same as first strip.  
Thus continue until mat is filled.

#### FOR A SIX-STRIP MAT.

1st strip—under margin, *o2*, *u2*, *o2*.  
2nd strip—under margin, *o1*, *u1*, *o2*, *u1*, *o1*.  
3rd strip—under margin, *u1*, *o1*, *u2*, *o1*, *u1*.  
4th strip—Same as 2nd. 5th—same as 1st. 6th—*u2*, *o2*, *u2*.

#### FOR A SEVEN-STRIP MAT.

1st strip—under margin, *o3*, *u1*, *o3*.  
2nd strip—under margin, *o2*, *u1*, *o1*, *u1*, *o2*.  
3rd strip—under margin, *o1*, *u2*, *o1*, *u2*, *o1*.  
4th strip—under margin, *u1*, *o2*, *u1*, *o2*, *u1*.  
5th strip—like 3rd. 6th strip—like second. 7th strip—like 1st.  
Thus continue till mat is filled.

#### FOR AN EIGHT-STRIP MAT.

1st strip—under margin, *o3*, *u2*, *o3*.  
2nd strip—under margin, *o1*, *u3*, *o1*.  
3rd strip—under margin, *o1*, *u1*, *o1*, *u2*, *o1*, *u1*, *o1*.  
4th strip—under margin, *u3*, *o2*, *u3*.  
5th strip—same as 3rd. 6th strip—like 2nd. 7th strip—like 1st.  
8th—*u3*, *o2*, *u3*.

#### FOR A NINE-STRIP MAT.

1st strip—under margin, *u1*, *o3*, *u1*, *o3*, *u1*.  
2nd strip—under margin, *o3*, *u3*, *o3*.  
3rd strip—under margin, *o2*, *u2*, *o1*, *u2*, *o2*.  
4th strip—under margin, *o1*, *u2*, *o1*, *u2*, *o1*.  
5th strip—under margin, *u2*, *o2*, *u1*, *o2*, *u2*.  
6th strip—same as 4th. 7th strip—like 3rd. 8th strip—like 2nd.  
9th strip—like 1st.

#### FOR A TEN-STRIP MAT.

1st strip—under margin, *o1*, *u1*, *o2*, *u1*, *o1*, *u1*, *o2*, *u1*.  
2nd strip—under margin, *u1*, *o1*, *u1*, *o2*, *u1*, *o1*, *u1*, *o2*.  
3rd strip—under margin, *o1*, *u1*, *o1*, *u2*, *o1*, *u1*, *o1*, *u1*.  
4th strip—under margin, *o2*, *u1*, *o1*, *u2*, *o1*, *u1*, *o1*.  
5th strip—under margin, *u1*, *o2*, *u1*, *o1*, *u1*, *o2*, *u1*, *o1*.  
6th strip—like 1st. 7th strip—like 2nd. 8th strip—like 3rd.  
9th strip—like 4th. 10th strip—like 5th.

A teacher suggests the following combination of colors: Yellow and violet, yellow and blue, gray and

blue, brown and red, red and yellow, orange and light green, dark red and light green. The same teacher says: "I would select nothing that would be a strong contrast for weaving, as checks in colors very opposite seem to hurt the eyes."

Verbal dictation affords an excellent exercise, for the mind is being taught to grasp the thought and the hand to perform the service at the same time. When the child has the power to take these dictations, he has gained that which will influence all his other work.

The following suggestions are made by Mary Louise Lent:

This year I have used kindergarten material more than ever before, and am highly pleased with the result.

With my beginners I have had fine success in weaving. The mats used are the  $4\frac{3}{4} \times 4\frac{3}{4}$  ones, with one-fourth inch slits, red with tints and shades, yellow with tints and shades, and blue with tints and shades. I found them just the right size to look pretty, and still not be soiled before finished. They have been durable also. We have not the weaving needles, so the children have done the work with their fingers. Being limited in material in this line, I have used it as a study in tints and shades rather than in combination of colors. My combinations have been as follows:

Standard color and tint 1.

Standard color and tint 2.

Standard color and shade 1.

Standard color and shade 2

Shade 2 and tint 2.

Shade 1 and tint 1.

The effect has been pleasing.

## Practical Sequence for Mat Weaving in Primary Schools.

Written by Mrs. E. S. Fairbanks, Minneapolis, Minn.

ABBREVIATIONS—ol. over one; ul, under one.

For mats  $4\frac{1}{2} \times 4\frac{1}{2}$  in. lits  $\frac{1}{4}$  inch wide.

### MAT NO. I.

1st strip—ol, ul, ol, ul, across.  
2nd strip—ul, ol, ul, ol, across.  
3rd strip—like first.

Continue until mat is finished.

Continue the weaving of over one, under one for a considerable time.

### MAT NO. II.

1st strip—o2, u2, o2, u2, across.  
2nd strip—u2, o2, u2, o2, across.  
3rd strip—like first.

Continue until mat is finished.

Repeat frequently for practice.

### MAT NO. III.

1st strip—o2, ul, o2, ul, across.  
2nd strip—u2, ol, u2, ol, across.  
3rd strip—like first.

Continue until mat is finished.

### MAT NO. IV.

1st strip—o3, u3, o3, u3, across.  
2nd strip—u3, o3, u3, o3, across.  
3rd strip—like first.

Continue until mat is finished.

### MAT NO. V.

1st strip—o3, u2, o3, u2, across.  
2nd strip—u3, o2, u3, o2, across.  
3rd strip—like first.

Continue until mat is finished.

### MAT NO. VI.

1st strip—o3, ul, o3, ul, across.  
2nd strip—u3, ol, u3, ol, across.  
3rd strip—like first.

Continue until mat is finished.

### MAT NO. VII.

1st strip—o2, u2, o2, across.  
2nd strip—ul, o2, u2, across.  
3rd strip—u2, o2, u2, across.  
4th strip—ol, u2, o2, across.  
5th strip—like first.  
6th strip—like 2nd.

Continue until mat is finished.

### MAT NO. VIII.

1st strip—o3, u3, o3, across.  
2nd strip—ul, o3, u3, across.  
3rd strip—u2, o3, u3, across.  
4th strip—u3, o3, u3, across.  
5th strip—ol, u3, o3, across.  
6th strip—o2, u3, o3, across.  
7th strip—o3, u3, o3, across.  
8th strip—like 2nd.

9th strip—like 3rd strip.  
10th strip—like 4th strip.  
11th strip—like 5th strip. Continued until mat is finished.

### MAT NO. IX.

1st strip—o2, u2, o2, u2, across.  
2nd strip—ol, u2, o2, u2, across.  
3rd strip—u2, o2, u2, o2, across.  
4th strip—ul, o2, u2, o2, across.  
5th strip—o2, u2, o2, u2, across.  
6th strip—like 2nd strip.  
7th strip—like 3rd strip. This continue.

### MAT NO. X.

1st strip—o3, u3, o3, across.  
2nd strip—ul, o3, u3, across.  
3rd strip—u2, o3, u3, across.  
4th strip—u3, o3, u3, across.  
5th strip—ol, u3, o3, across.  
6th strip—o2, u3, o3, across.  
7th strip—o3, u3, o3, across.  
8th strip—like 6th.  
9th strip—like 5th; continue.

### MAT NO. XI.

1st strip—ol, u3, ol, u2, ol, u3, ol, u2, ol, ul.  
2nd strip—ul, o3, ul, o2, ul, o3, ul, o2, ul, ol.  
3rd strip—like 1st.  
4th strip—like 2nd; continue.

#### MAT NO. XII.

1st strip—o3, u3, o3, u3, across.  
2nd strip—o1, u1, o1, u1 across.  
3rd strip—like 1st.  
4th strip—u3, o3, u3 across.  
5th strip—like 1st.  
6th strip—like 2nd; continue.

#### MAT NO. XIII.

1st strip—o5, u5, o5 across.  
2nd strip—o2, u1, o2, u2, o1, u2,  
o2, u1, o2.  
3rd strip—o1, u3, o1, u1, o1, u1.  
o1, u1, o1, u3, o1, u1.  
4th strip—like 2nd.  
5th strip—like 1st.  
6th strip—u5, o5, u5 across.  
7th strip—u2, o1, u2, o2, u1, o2,  
u2, o1, u2, o1.  
8th strip—u1, o1, u1, o1, u1, o1,  
u3, o1, u1, o1, u1, o1, u1, o1.  
9th strip—like 7th.  
10th strip—like 6th.  
11th strip—like 1st and con-  
tinue until mat is completed

#### MAT NO. XIV.

1st strip—o5, u5, o5, u1.  
2nd strip—u1, o4, u4, o1, u1, o4,  
u1.

3rd strip—u2, o3, u3, o2, u2, o3,  
u1.  
4th strip—u3, o2, u2, o3, u3, u1.  
5th strip—u4, o1, u1, o4, u4, o1,  
u1.  
6th strip—u5, o5, u5, o1.  
7th strip—like 1st.  
8th strip—like 2nd. and so on

#### MAT NO. XV.

1st strip—o2, u2, o8, u2, o2.  
2nd strip—o3, u2, o6, u2, o3.  
3rd strip—o4, u2, o4, u2, o4.  
4th strip—o5, u2, o2, u2, o5.  
5th strip—like 3rd.  
6th strip—like 2nd.  
7th strip—like 1st.  
8th strip—o1, u2, o10, u2, o1.  
9th strip—u2, o12, u2.  
10th strip—like 8th.  
11th strip—like 1st.  
12th strip—like 2nd.  
13th strip—like 3rd.  
14th strip—like 4th.  
15th strip—like 5th.  
16th strip—like 6th.

This finishes the mat.

These same patterns or this  
sequence may be used for the  
large mats, 7x7 inches, if that  
size is preferred

### Special Sequence for the 7x7 Mats.

#### MAT I.

1st strip, o 3, u 3, across.  
2d strip, u 1, o 3, u 3, across.  
3d strip, u 2, o 3, u 3, across.  
4th strip, o 2, u 3, o 3, across.  
5th strip, like 1st.  
6th strip, like 2d.  
7th strip, o 1, u 3, o 3, across.  
8th strip, o 2, u 3, o 3, across.  
9th strip, o 3, u 3, across.  
10th strip, u 3, o 3, across.  
11th strip, o 1, u 3, o 3, across.  
12th strip, o 2, u 3, o 3, across.

Thus continue making steps in  
groups of three.

#### MAT II.

1st strip, o 2, u 2, o 2, u 2, o 2,  
u 3, o 2, u 2, across.  
2d strip, o 1, u 2, o 2, u 2, o 2,  
u 2, o 1, u 2, o2, across.  
3d strip, u 2, o 2, u 2, o 2, u 2,  
o 3, u 2, o 2, u 2, o 2, across.



4th strip, u 1, o 2, u 2, o 2, u 2,  
o 2, u 1, o 2, u 2, o 2, u 2,  
across.

5th strip, like 1st.

6th strip, like 2d.

7th strip, like 3d.

8th strip, like 4th.

9th strip, like 1st.

10th strip, like 2d.

11th strip, like 3d.

12th strip, like 10th.

13th strip, like 9th.

14th strip, like 8th.

Thus continue until mat is  
completed.

#### MAT III.

1st strip, o 2, u 3, o 3, u 3, o 1,  
u 3, o 3, across.

2d strip, o 3, u 3, o 3, u 5, o 3,  
u 3, across.

3d strip, u 1, o 3, u 3, o 3, u 3,  
across.

4th strip, u 2, o 3, u 3, o 3, u 1,  
o 3, u 3, across.

5th strip, u 3, o 3, u 3, o 5, u 3,  
o 3, across.

6th strip, o 1, u 3, o 3, u 3,  
across.

7th strip, like 1st.

8th strip, like 2d.

9th strip, like 3d.

10th strip, like 4th.

11th strip, like 5th.

12th strip, like 6th.

13th strip, like 7th.

14th strip, like 12th.

15th strip, like 11th.

16th strip, like 10th.

Thus continue until mat is  
completed.

#### MAT IV.

1st strip, o 3, u 1, o 3, u 1, across.

2d strip, o 2, u 3, o 5, u 3, o 5,  
u 3, o 3.

3d strip, o 1, u 2, o 1, u 2, o 3,  
u 2, o 1, u 2, o 3, u 2, o 1,  
u 2, o 2.

4th strip, u 2, o 3, u 2, o 1, u 2,  
o 3, u 2, o 1, u 2, o 3, u 3.

5th strip, u 1, o 5, u 3, o 5, u 3,  
o 5, u 2.

6th strip, like 1st.

7th strip, like 2d.

8th strip, like 3d.

9th strip, like 4th.

10th strip, like 5th.

11th strip, like 1st.

12th strip, like 2d.

13th strip, like 3d.

#### MAT IV—Continued.

14th strip, like 4th.

15th strip, like 5th.

16th strip, like 1st.

And so on until mat is completed.

#### MAT V.

1st strip, o 1, u 3, o 1, u 3, across.

2d strip, u 1, o 1, u 1, o 1, u 5.

o 1, u 1, u 5, o 1, u 1, o 1, u 4.

3d strip, u 2, o 1, u 7, o 1, u 7.

o 1, u 5.

4th strip, like 2d.

5th strip, like 1st.

6th strip, u 6, o 1, u 7, o 1, u 7.

o 1, u 1.

7th strip, u 5, o 1, u 1, o 1, u 5.

o 1, u 1, o 1, u 5, o 1, u 1, o 1.

8th strip, like 6th.

9th strip, like 1st.

10th strip, like 2d.

And so on until mat is finished.

#### MAT VI.

1st strip, o 1, u 3, o 1, u 5, o 1,  
u 3, o 1, u 5, o 1, u 3.

2d strip, u 1, o 1, u 1, o 1, u 3.  
o 1, u 3, o 1, u 1, o 1, u 3,

o 1, u 3, o 1, u 2.

3d strip, u 2, o 1, u 3, o 1, u 1,  
o 1, u 3, o 1, u 3, o 1, u 1,

o 1, u 3, o 1, u 1.

4th strip, like 2d.

5th strip, like 1st.

6th strip, u 5, o 1, u 3, o 1, u 5,  
o 1, u 3, o 1, u 4.

7th strip, like 3d.

8th strip, u 1, o 1, u 1, o 1, u 3,  
o 1, u 3, o 1, u 1, o 1, u 3,

o 1, u 3, o 1, u 1, o 1.

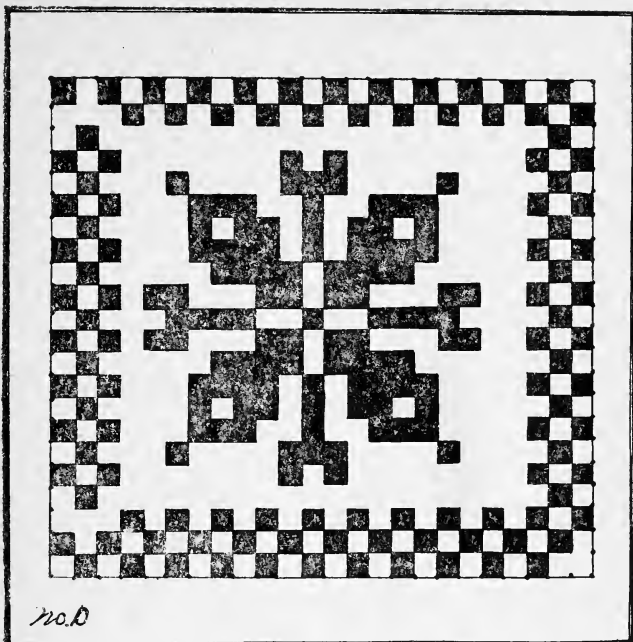
9th strip, like 3d.

10th strip, like 6th.

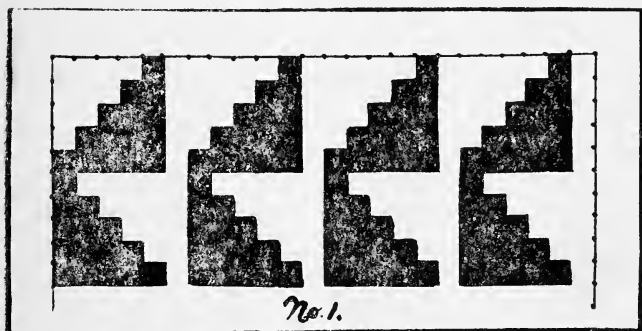
11th strip, like 1st.

12th strip, like 2d.

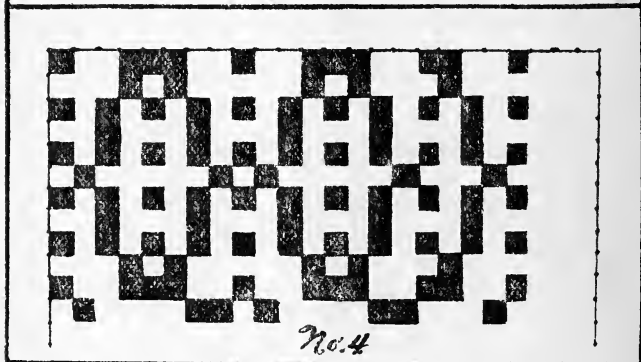
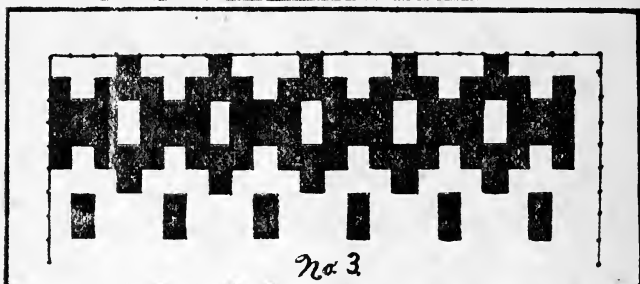
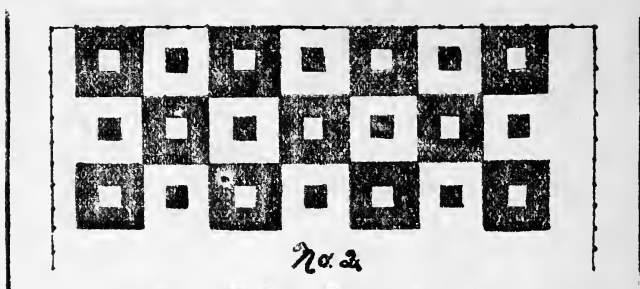
We give below a few designs for mat weaving, using the  $4\frac{3}{4} \times 4\frac{3}{4}$  mats, slits 1-6 inch. The same designs are suitable for 7 x 7 mats, slits  $\frac{1}{4}$  inch. By eliminating one or more sections of each design, they will be found equally well adapted to the  $4\frac{3}{4} \times 4\frac{3}{4}$  mats, slits  $\frac{1}{4}$  inch or wider.



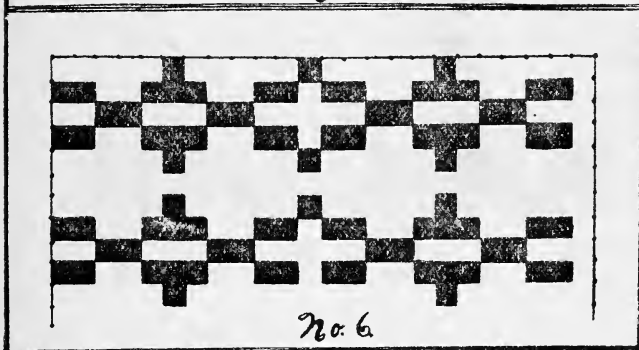
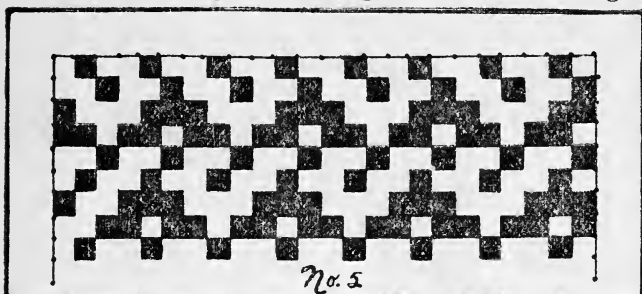
The above figure shows a mat woven complete. The colors used are white, red and orange. Any standard colors can be used successfully in this design.



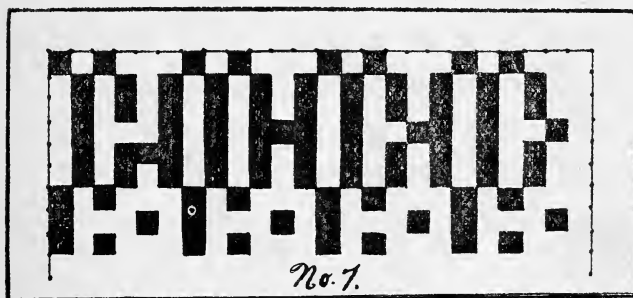
No 1 shows about one-half the mat. The same designs are used throughout to complete. Background, black; topmost design, white; second, gray.



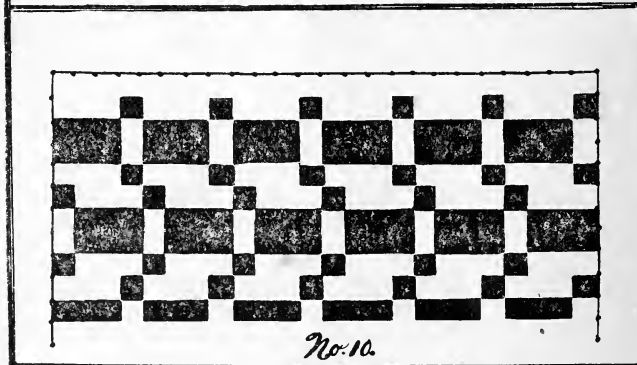
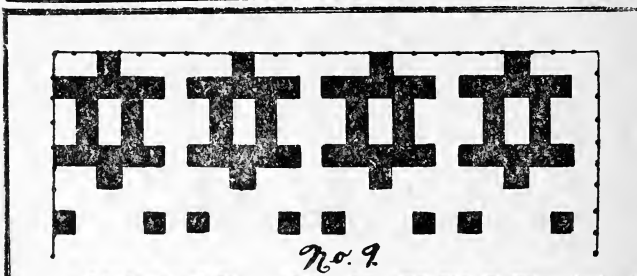
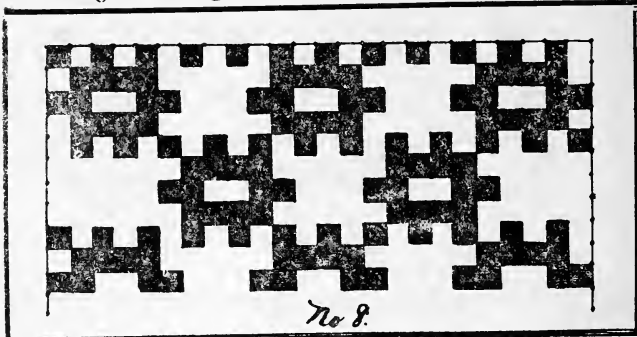
No. 2. Back ground, orange. First line of design.

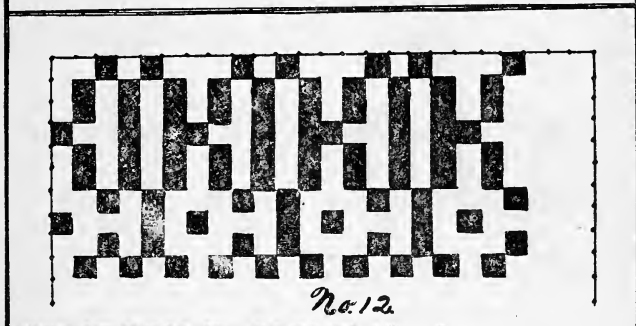
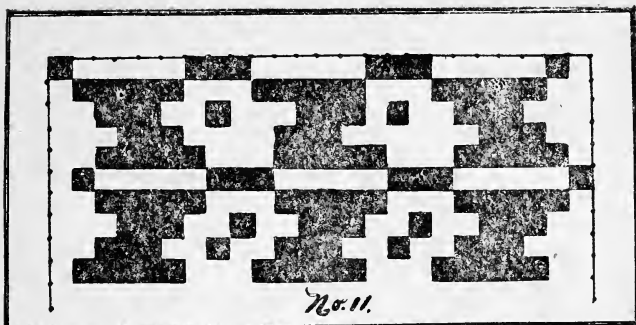


black; second, white, thus alternating throughout the mat.

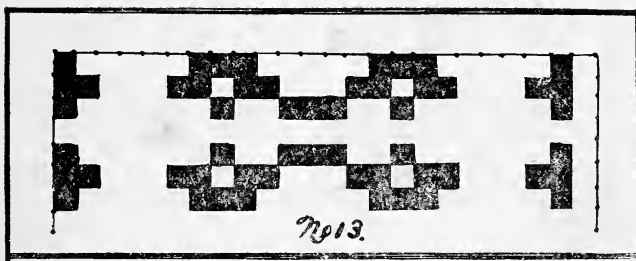


No. 3. Back ground, orange tint. Balance woven





in orange except the five strips brought to the margin of the top, which are all black. Woven in entire length of mat.



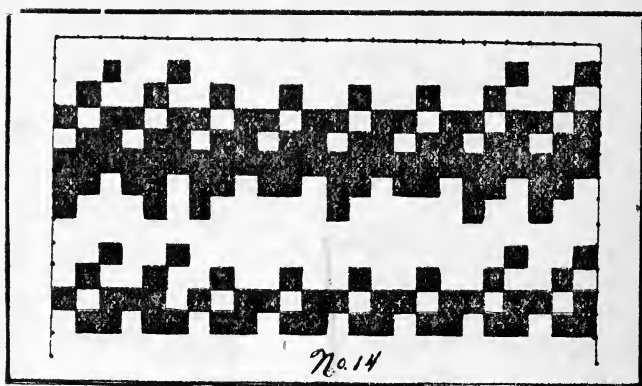
No. 4. Back ground, orange, tint 1; first and each fourth strip from the right woven throughout with white. Balance of the design in standard orange.

No. 5. Back ground, orange, tint 1; first four strips from top, white; second four strips, orange. Thus continue throughout the mat.

No. 6. Back ground, green, tint 1; top series of designs, violet, tint 2. Each alternate design gray.

No. 7. Back ground, orange. Balance of design woven from top to bottom, alternating three strips, white and black.

No. 8. Back ground red, tint 1; first strip' from right to left, standard red; three following strips, white. Repeated throughout the mat.



No. 9. Back ground, red, shade 1. First strip from top to bottom, white; second strip, black; third strip, red, tint 2; fourth strip, black; fifth strip, white. Thus continued till completed.

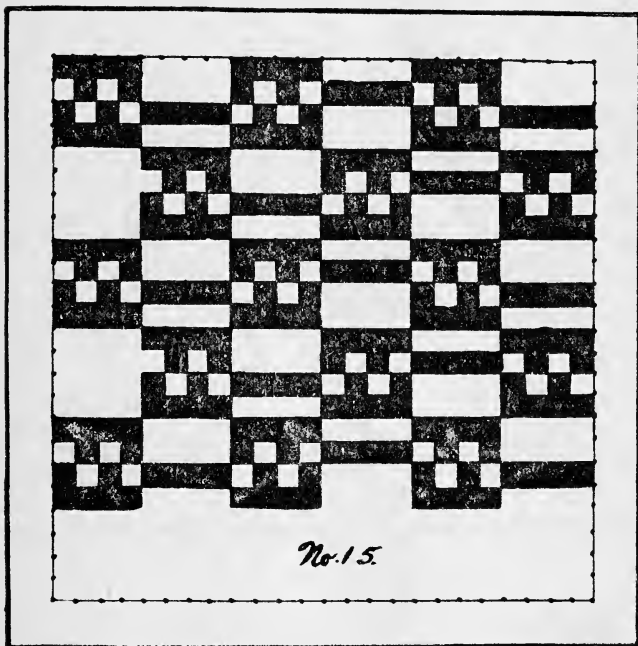
No. 10. Back ground, gray. Top design consist-



ing of four strips red, tint 1; second design, blue green, shade 2, alternating throughout the mat.

No. 11. Back ground, blue, tint 2; first two top lines, gray; third line, cool gray, No. 1; fourth line, standard blue; fifth, sixth and seventh, blue shade 1; eighth line, standard blue; ninth line, cool gray No. 1; tenth line, gray. Repeat once, completing the mat.

No. 12. Back ground, gray; first from top to bottom, blue, tint 1; then three strips blue, shade 1. Thus continue till mat is completed.



No. 13. Back ground, yellow, shade 2. Three top strips, standard yellow, followed by one strip same

shade as back ground; then three strips of yellow, tint 2

No. 14. Back ground, orange; first three strips from top to bottom, black; second three strips, white. Thus alternate till mat is completed.

These designs can be woven in many other harmonizing colors.

Every teacher doubtless understands that leading the pupils to think is a most important part of education. Therefore the children should always be encouraged to invent when performing any of the kindergarten work, but care should be taken that a definite aim is leading the work.

---

This volume will be read by many primary teachers who find it necessary to purchase at their own expense most of the kindergarten material which they use. Many such are willing to spend time rather than money in the preparation of material. To such we offer uncut weaving mats, printed on the back as shown by the following, which furnishes a guide for accurate cutting, and with a pair of tight fitting shears this can be done quite accurately.

Just twice the quantity of mats can be secured in this way. Thus a package of 5x7 cut mats contains twelve mats and twelve fringes, and twenty-four mats and twenty-four fringes are furnished uncut.

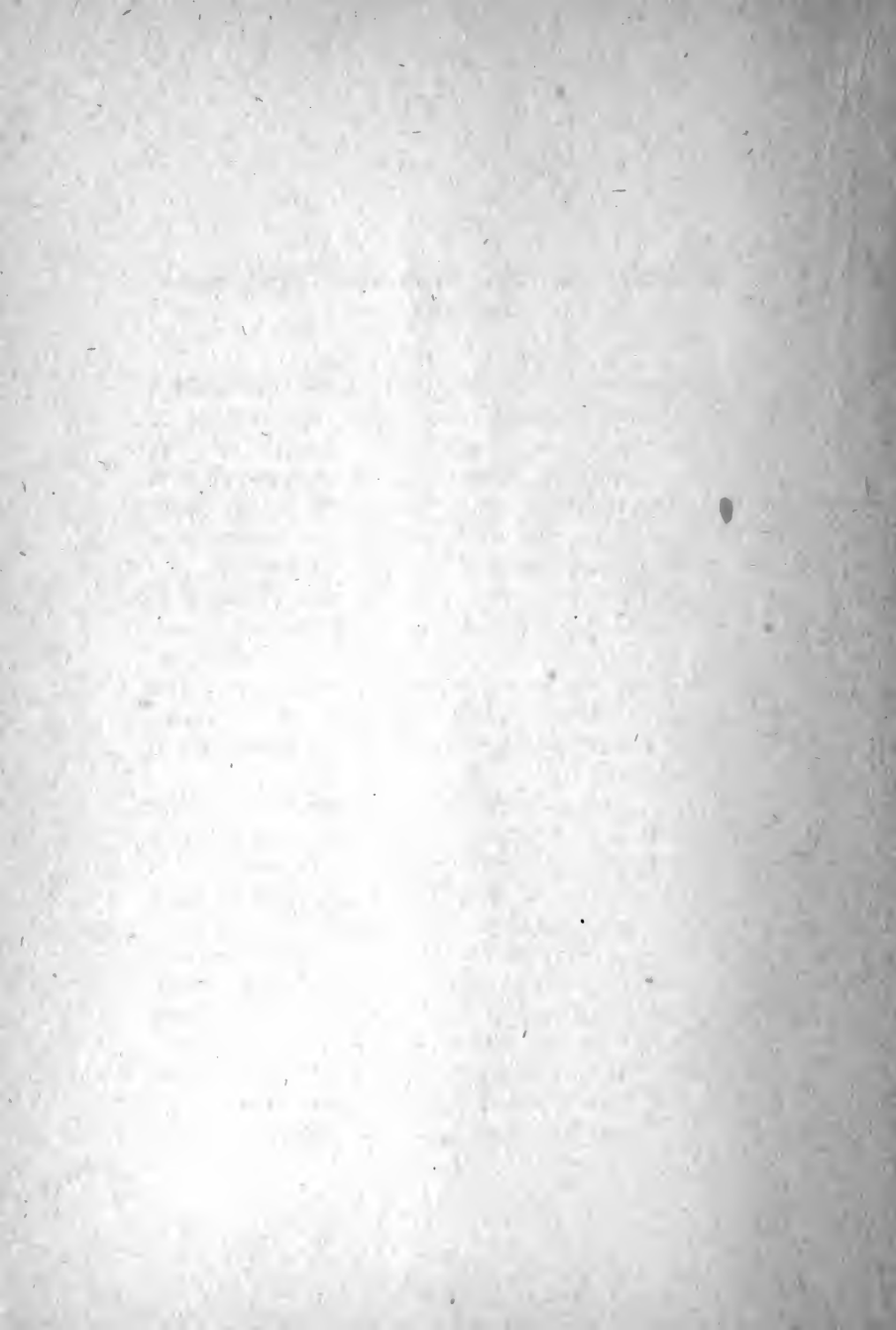
Cutting the larger mats or those with  $1/6$  inch slits, we consider too tedious to be done by hand, and hence only the  $4\frac{3}{4} \times 4\frac{3}{4}$  and 5x7 mats with slits  $\frac{1}{4}$  inch and wider are furnished in this way.

**Instructions**--Fold as per sample sheet, one or more sheets together. Hold **FIRMLY** to prevent slipping. Cut with **SHARP**, tight jointed shears **EXACTLY** on lines, stopping on cross line at end for the mats, but cutting a little beyond for the fringes.


**CARE** and a little **EXPERIENCE** will secure satisfactory results.



***Part II***  
***Slat Weaving***



## The Ninth Gift—Slat Weaving—in Primary Schools

---

Following the Froebelian system of child culture progress is made by easy steps from the concrete or material toward the abstract—the mental and the spiritual. Beginning with the solid we proceed first to the plane, then to the line, and lastly to the point. Thus progressing, the disconnected slats represent at once the embodied line and a part of the surface.

The disconnected slats, or "hardwood splints," as they are sometimes called, are quite popular in primary schools. The material is inexpensive and non-consumable, hence can be used over and over again. The following lessons are merely suggestive, can be varied to suit the conditions, age of pupils, time at disposal of teacher, etc.

First give each pupil a slat. Can you tell me what this is made of? Yes, wood. Can you tell me where wood comes from? Yes, from trees, or shrubs. Is all wood alike? Some wood is soft and some wood is hard, some light and some dark in color. Some wood will bend and other wood will not. Will your slat bend? Yes; but if you bend it too far it will break. Some wood will not break by bending. Can you think of any wood that will not break by bending? Yes, willow. Mention other woods. Can you tell me the name of any wood that is soft? Yes, pine, bass wood, white wood, etc. Can you think of any wood that is hard?

Yes, oak, maple, hickory, beech, etc. Now look at your slat and tell me how many edges it has, and how many corners, sides and ends. Can you point to the surface of the slat? Now you may lay the slat so as to form a horizontal line (Fig. 1). You may lay it



so as to form a vertical line (Fig. 2). When a vertical line and a horizontal line are placed together they form a right angle. Now give pupils another slat. You may place one slat horizontally and the other vertically close against it. You have formed a right angle (Fig. 3). Now you may bring the two ends of the slat nearer together. You have formed an acute angle. Now move the two ends of the slats back again so they will be farther apart than when they formed a right angle and we have an obtuse angle (Fig. 4). Now you may see how many different ways you can make a right angle.

*Note to Teacher.*—Let the pupils form a right angle in such manner as to bring the corners at the upper left hand, then at the upper right hand, then at the lower right hand and the lower left hand. If practical have four pupils each place two sticks together so that the whole will form a square. The acute and the obtuse angles can also be made in the four different



positions. Close the lesson by allowing the pupils to place the slats on the desk so that one end will project about three inches from the front of the desk. Hold the slat with the left hand about two inches back from the front edge of the desk, and by striking the projecting end of the slat a peculiar buzzing sound will be heard. Pupils may be allowed to make this sound to some suitable measure of time, which will be greatly enjoyed by them.

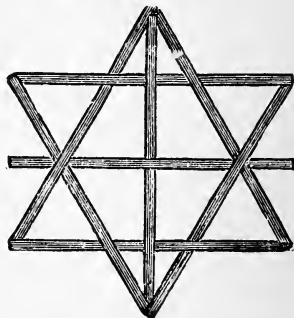
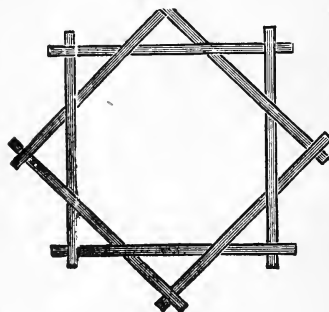
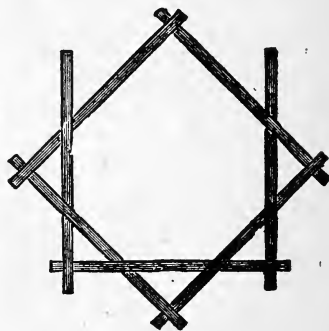
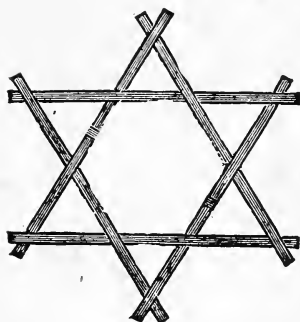
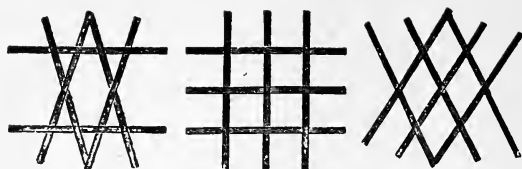
#### LESSON NO. 2

Begin the lesson with a review of the work of the previous day, and continue by giving the pupils each four slats, which is the least number with which any form that will hold itself together can be made. The following diagrams represent a graded series of work with slats and are self-explanatory :

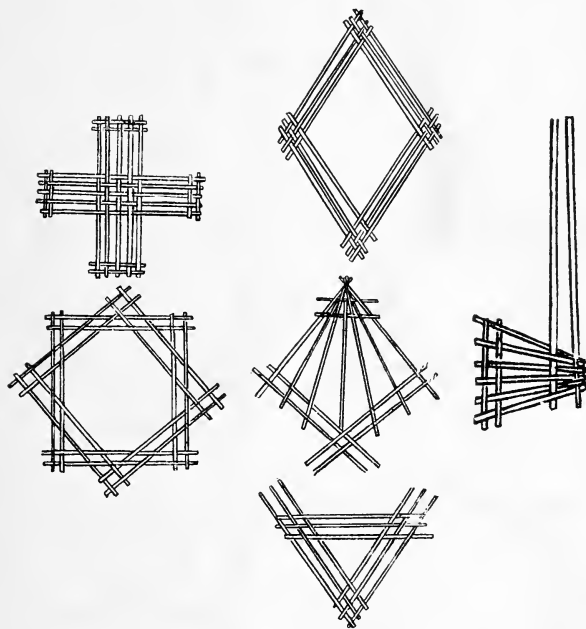
Every primary teacher will understand readily how to correlate the work with the number lessons, and little talks on the nature and use of the various articles constructed should be given as time will permit. These talks can be frequently used by pupils of higher grades for their written language work, thus enabling the teacher to instruct two classes at once.

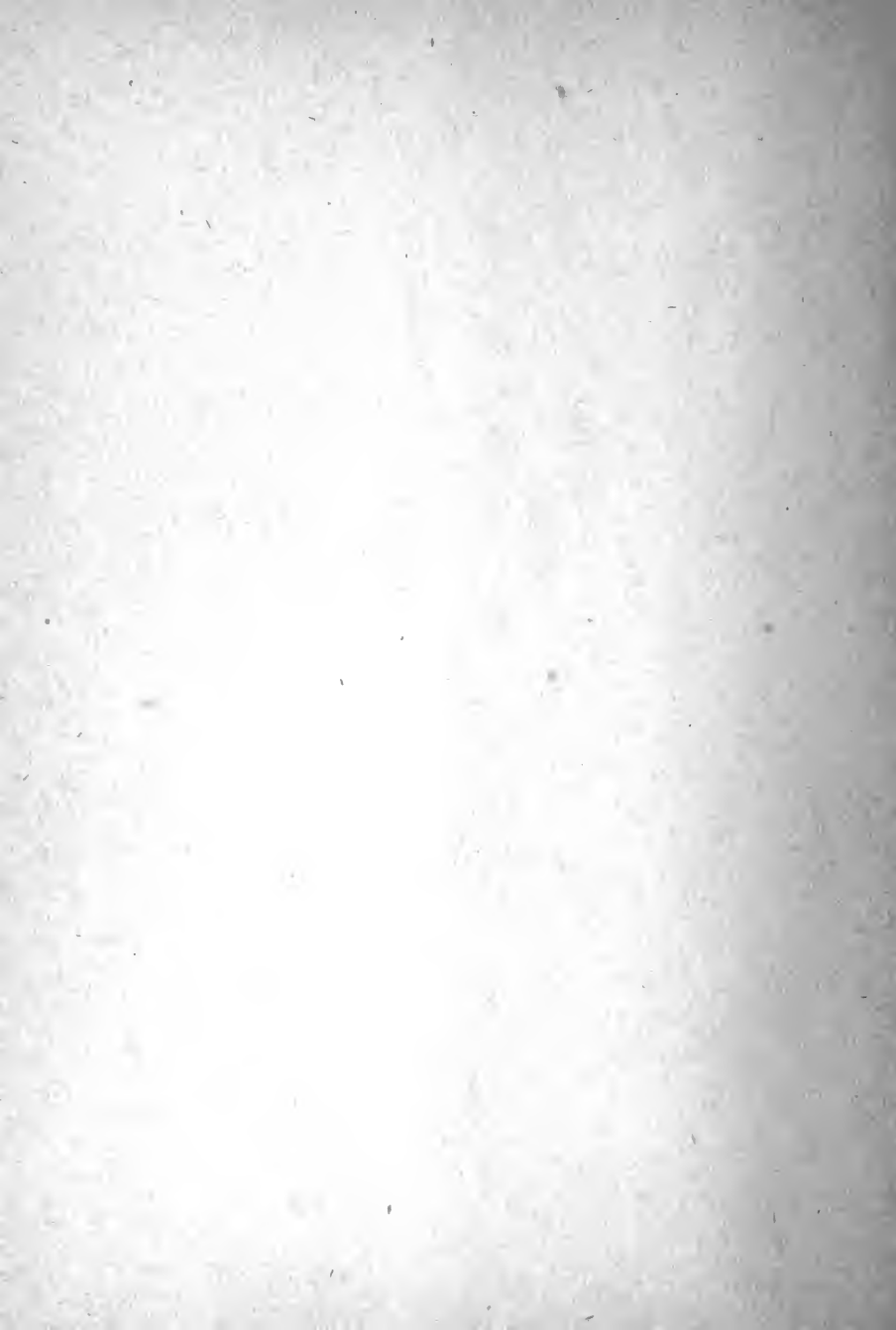


In weaving the slats are placed over and under each other in such a way that they retain and hold each other together, thus forming the design. The



younger pupils should be given the hardwood slats. As they advance in experience and skill, many permanent forms can be made by using the cheaper soft wood slats which can be readily cut to any length desired with an ordinary pair of scissors. The designs given are merely suggestive. The pupils should be encouraged to invent. Talks about the form constructed, angles, etc., should accompany the work.











LIBRARY OF CONGRESS



0 019 878 661 5